

For example, absent regulation a broadcast television network or large broadcast television group owner could determine the digital transmission standard to be utilized by its affiliates and/or owned and operated stations and contract with a manufacturer of set-top boxes to produce --under license-- a digital converter with specifications to comport with that digital standard, as well as to other tailor-made features, including a proprietary conditional access system for the programming channels (whether sent in the clear or scrambled) and the pay services of other MVPDs. For wide and rapid deployment, the broadcaster could provide its boxes free of charge. Alternatively, consumers eager to acquire digital converters for their analog TV would purchase the established box on the market at the time --most likely the first-deployed box-- even if that product permits access to only a limited selection of programming: that of the network affiliates and O&O stations.

Once consumers have cluttered the top of their TV sets with a box or have purchased the first-on-the-market converter, they will unlikely purchase and/or install additional boxes to translate the signals of other DTV stations in a given television market. Viewers with a "uni-choice" box, therefore, would be unable to access the digital signals of competing free, over-the-air broadcast stations or to subscribe to competing DTV pay services. Alternatively, the broadcast television network arriving at the market first with a DTV converter box could allow access to competing broadcasters' signals, but perhaps only as part of the network's own packages of services. With such leverage, a network first-in with a converter box could gain unfair advantage in acquiring programming rights vis-à-vis other broadcast networks. Moreover, if the "first-in" television network also has an ownership interest in a cable system or DBS system, it could insure that that affiliated system is the only other system that would easily interface with the DTV set-top box.

Real-world evidence of the effects of gate keeping is seen in the United Kingdom and France, where the dominant DBS operators in which the *de facto* standard box can charge monopoly rents to independent programmers; are in positions to acquire forced equity stakes in programmers can gain exclusivity to keep programming off competing programmers' packages and can poorly position independent programmers' channels that compete with its affiliated programming. As for DTV, broadcasters in Britain are now racing to launch their digital services so as to prevent DBS provider BSkyB from creating *de facto* standards with proprietary technology.³⁰ Additionally, it was reported that BSkyB might launch a service with proprietary encryption technology with set-top boxes that would work only with satellite signals.³¹ British broadcast industry sources have stated that if BSkyB boxes are rolled out first, subscribers were not likely to buy a dual-purpose box and BSkyB would become a "digital gatekeeper."³²

The Commission can prevent these European scenarios from migrating to the United States. To do so the Commission must adopt rules now --before the commencement of production of DTV converter boxes-- to facilitate commercial availability of navigation devices, particularly DTV devices and to foster competition among MVPDs, including DTV broadcasters, both of which are objectives of Section 629. Commission rules should mandate, effective immediately, that specifications for any navigation device which contains a DTV converter be open. In short, all boxes produced with DTV converters must be multi-choice, so as to facilitate both DTV and other MVPD services. Most importantly, because it is technically feasible for an MVPD supplying a set-top box to prevent a viewer from receiving even the DTV channel transmitted in the clear, that is, the one free channel required by the

³⁰ See "British TV Could Overtake BSkyB to Set Digital TV Standards," *Communications Daily*, November 7, 1997, p.7.

³¹ See *id.*

³² *Id.*

Commission under the recently released DTV rules,³³ it is imperative that the Commission mandate that all set-top boxes be capable of receiving and passing through all programming that is unencrypted.

In this way, the *de facto* standard for DTV navigation equipment is established by and accessible to the entire DTV industry, not by a single member of the industry who by virtue of being first to the market becomes the gatekeeper for the DTV --and potentially, the MVPD-- world. Indeed, not only will broadcasters benefit from such universal standards, but so, too, will American consumers, whose investment in DTV equipment will give them the ability to choose among DTV and other MVPD services.

That a universal digital box is feasible and attainable is demonstrated by the cable television industry's agreement last fall to a *de facto* standard for all digital cable equipment.³⁴ While the cable industry reached such agreement on its own, without government intervention, it is important to note that the accord on the *de facto* digital cable standard occurred after years of discussion. However, unlike the cable industry, the broadcast television industry has been mandated by the Commission to convert its service to digital by specific deadlines or risk loss of license to ever broadcast at all. Broadcasters, therefore, do not have the luxury of time that the cable industry has enjoyed.

In order to insure that the launch of DTV is successful and that Section 629 is fairly implemented, the Commission must today set a deadline for the broadcast industry and the consumer equipment manufacturers to craft a universal standard for

³³ See *Fifth Report and Order* at ¶28.

³⁴ See "Cable Moves to De Facto Standard for Digital Set-tops, Modems," *Communications Daily*, October 4, 1996, p.3.

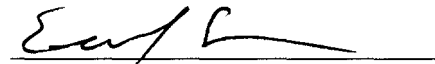
DTV converter boxes. Additionally, to insure complete universality of the DTV box while not thereby compromising signal security, the Commission should, in consultation with industry standard-setting organizations, mandate the use of a smart-card conditional access system in lieu of the proprietary analog systems now in place. Viacom urges the Commission to set a deadline of nine months from the adoption date of the Report and Order resolving this proceeding for an industry agreement on the decoder and security module standards. If by that date the industries have failed to agree upon standards, then the Commission must establish them, but in consultation with "appropriate industry standard-setting organizations," as provided for in Section 629(a).³⁵ Upon adoption of these standards for a universal, multi-choice set-top box, the broadcast industry will be empowered to launch digital television without the anticompetitive impediment of going through a first-in, MVPD gatekeeper.

³⁵ The Commission took similar action in the proceeding relating to cable system consumer equipment compatibility, urging private industry groups to complete its pending work on the Decoder Interface Standard within 90 days from the date of publication of the Commission's order. *See Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992, First Report and Order* in ET Docket No. 93-7, 75 RR 2d 152, ¶41 (1994).

V. Conclusion

For the reasons stated above, Viacom urges the Commission to adopt rules which require that going forward, all set-top boxes produced contain universal and multi-choice features. Because of the advent of the launch of digital television and in order to foster broadcast MVPDs, Viacom advocates Commission intervention in bringing the industry together to agree within nine months of the Report and Order upon the standards for a universal, multi-choice set-top box that are consistent with Section 629 of the Act. And in all cases, where set-top boxes are commercially available, Viacom strongly urges Commission adoption of rules that mandate the isolation of the security system and the use of the smart-card conditional access system, with distribution of the latter to be controlled by the MVPD and not by consumer electronics retailers or others..

VIACOM INC.



Edward Schor

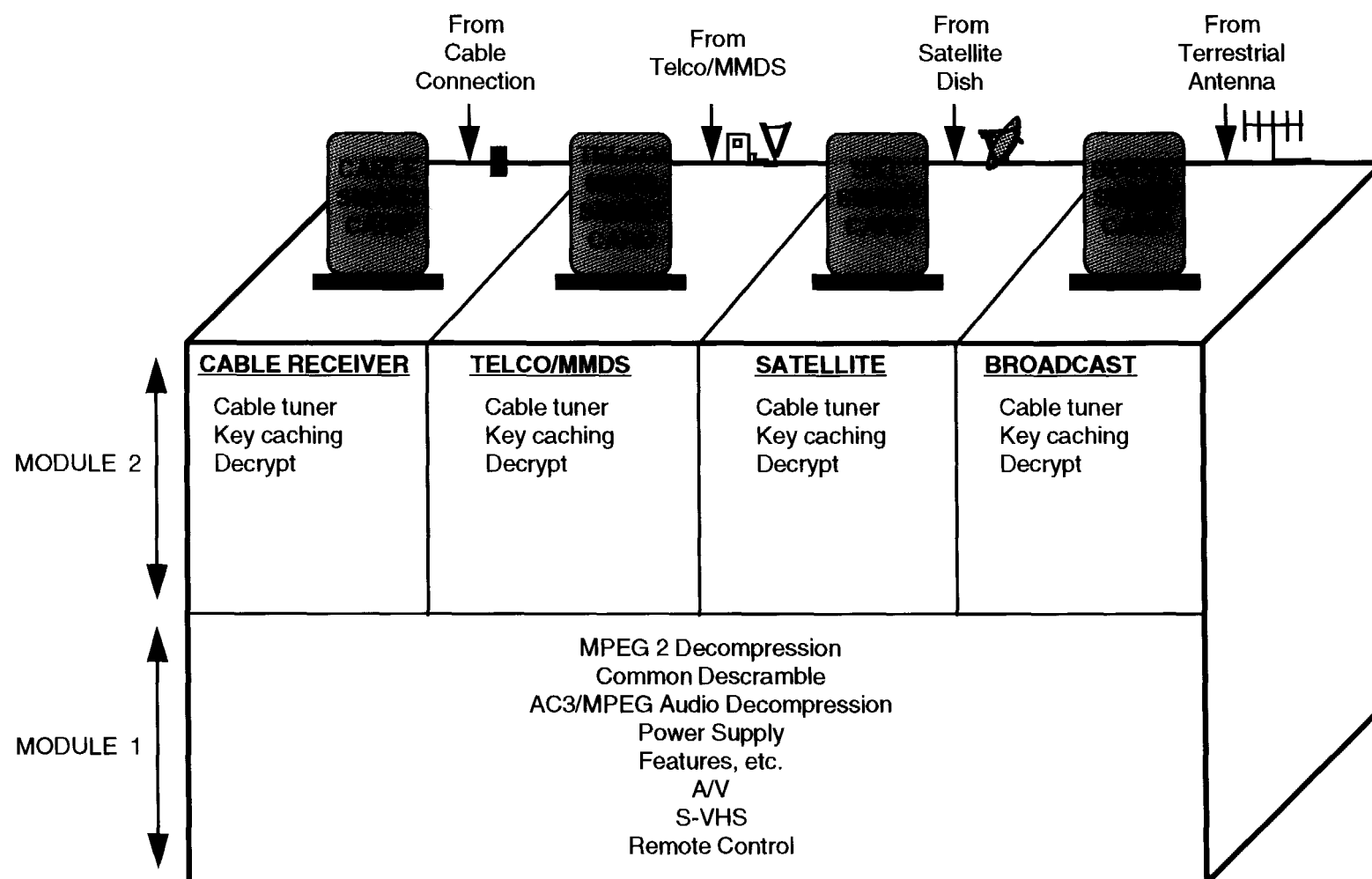
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May 16, 1997

APPENDIX A

INDEPENDENT STANDALONE BOX



APPENDIX B

Crossed Wires

Cable Pirates Sought Plunder but Blundered Into a Major FBI Sting

A Bold Attempt to Corner
Market in Descramblers
Is Sunk by Secret Camera

Moving Those Hot 'Pancakes'

By MARK ROBICHAUX

Staff Reporter of THE WALL STREET JOURNAL

In a Kenilworth, N.J., warehouse filled with illegal cable-TV boxes, Frank Russo, a suspected kingpin among cable pirates, was asked by an undercover agent if he was afraid of getting caught by the authorities. His reply: "The only way they'll catch me is if they have videotape of me." Nearby, a hidden video-camera silently captured the moment.

That tape and other evidence has finally brought down a cartel of cable thieves who brazenly joined forces not just to rip off cable companies: They plotted to corner the U.S. black market in illegal descramblers, which allow consumers to tap into cable without paying for it. Over three years, the pirates built a sophisticated money machine to buy and sell millions of dollars in illicit equipment while leading investigators on a wild ride across three continents, according to authorities.

But last year, the ride ended. The U.S. attorney in Newark, N.J., and the Federal Bureau of Investigation unsealed a 92-count federal indictment that charges people in four states with mail and wire fraud, money laundering and the transport of millions of dollars worth of stolen and doctored cable boxes. Dubbed "Operation Cable Trap" and filed in U.S. District Court in New Jersey, the case details a complex, underground web of fellow pirates and sham companies that Mr. Russo and others cultivated to help hundreds of thousands of Americans steal cable-TV signals.

Felony Indictments

In all, 15 people, including Mr. Russo and a top accomplice, Trey Prevost, have pleaded guilty to felonies. The inquiry

continues and more arrests are expected. Both men face lengthy prison terms and will be sentenced this fall. None of the defendants named in the criminal case would comment on their involvement.

"The FBI and the U.S. attorney 'hooked a big fish and they just let the line run,'" says Jim Allen, who heads the office of cable theft of the National Cable Television Association, a cable trade group.

A large part of the government's case, say federal prosecutors, was put together with help from America's largest cable-equipment maker, General Instrument Co. of Chicago. In an elaborate sting, both FBI and General Instrument undercover operatives infiltrated the cable-piracy ring, then shadowed Mr. Russo and his associates as they arranged for him and others to buy cable boxes, known as "plain Janes," from General Instrument. Mr. Russo's minions would then take the boxes, fit them with chips that allow viewers to illicitly unscramble premium cable signals such as movie channels, then resell them at huge markups on the black market. A box that cost Mr. Russo as little as \$35 could be sold for as much as \$300; the lure for customers — beating, forever, monthly cable-TV fees.

Mr. Russo's partner was Novaplex, one of several businesses operated by the 30-year-old Mr. Prevost, allegedly an even bigger pirate with operations based in Sun Valley, Calif. Together and separately, the government says, they and others planned and ran operations that, during the three-year period, bought and sold several hundred thousand illegal cable converters valued at about \$100 million.

The cable thieves never failed to show moxie: Once they even stole from the police. In a 1994 heist described in the indictment, they broke into a Los Angeles Police Department evidence warehouse, and made off with 3,500 converters, which Mr. Russo allegedly sold for \$250,000, court documents state. Mr. Russo and his associates zipped around on a 36-foot Mirage powerboat bearing the name "Pirate I," which was moored at a Fort Lauderdale, Fla., marina.

An Old Problem

Stealing cable service has been around since the industry started. It is a market fueled largely by unrepentant customers who don't mind splicing a cable wire for basic service or paying as much as \$300 for an illegal converter box that gives them hundreds of dollars a month in free cable, premium TV and pay-per-view movies. Thieves siphon off an estimated \$5 billion annually in lost revenue, and cable operators claim the problem is only getting worse, as subscriber growth levels off in the wake of satellite-dish competition.

Cable is also fighting a public perception: that stealing cable really isn't stealing. "People who would never go into Blockbuster and stuff a video in their pants have no problem taking this little black box and stealing cable," says Mr. Allen of the National Cable Television Association. "They can get one shipped to their door from an 800 number, so the stigma is removed."

Indeed, today's black-box pirates are more sophisticated and organized than ever, selling boxes in bulk through tiers of distributors and retailers who, in turn, advertise descramblers on the Internet and in newspapers and magazines. In a recent issue of Popular Electronics maga-

Please Turn to Page A8, Column 1

Sting Breaks Up Huge Cable-Piracy Ring

Continued From First Page

zine, one ad reads: "Are cable companies sucking you dry?" Above is a picture of a vampire.

Of the wholesale pirates, the government indictment states, Mr. Russo, 49, was among the biggest. A North Miami Beach, Fla., businessman, he operated out of a number of South Florida warehouses, including two in Port St. Lucie, through a company called Leasing Ventures. His forte: figuring out how to get his hands on huge numbers of cable boxes, some illicitly manufactured, others stolen or bought (as those in the General Instrument sting) by ruse or chicanery from legitimate suppliers. He also supplied "pancakes" — a more sophisticated kind of descrambler that sits atop a plain-Jane converter and allows free access to a virtually unlimited supply of premium-cable programming.

Mr. Russo certainly found himself busy; as cable rates climbed in the early 1990s, demand for the illegal boxes soared. Mr. Russo, according to the indictment against him, started out buying shipments of stolen boxes, sometimes through cable-

company employees. In one incident described in the indictment, he sold more than 3,000 cable converters that were stolen from a truck bound for a Scientific Atlanta Corp. warehouse in Arizona. Street value: \$400,000.

As early as 1992, Mr. Russo's business had grown into a family operation, according to the indictment, and included his wife, Joann, 42, who issued wire transfers and checks, and son Frank Jr., who worked at one of several Russo businesses.

A Turning Point

General Instrument came into the picture when the senior Mr. Russo, to help stabilize the erratic supply of boxes, made a move on the cable-equipment supplier. One day in February 1993, Stan Durey, the company's director of security programs, got an unusual call from a former General Instrument employee who had worked in sales in Latin America. The man talked excitedly about opportunities in supplying cable boxes to budding Latin American markets. "He kept pressuring me — which was very uncharacteristic of him — to come meet his partners," Mr. Durey says in an interview.

Mr. Durey and Philip Deming, a General Instrument security consultant, agreed to meet with the man and his partners at the US Air Club at New York's La Guardia Airport.

Mr. Durey says he was introduced to Mr. Russo, who identified himself as the president of the start-up company that wanted to buy the boxes to supply Latin American cable operators. Dressed in a black shirt, black suit and wearing a signet ring with the initial "F" made of eight one-carat diamonds, Mr. Russo drank scotch and smoked throughout the meeting, Mr. Durey says.

General Instrument, like most legitimate cable-equipment suppliers, vets its customers, precisely to keep its boxes out of pirates' hands. When Mr. Durey reminded Mr. Russo of his company's strict background checks on new distributors, the presentation quickly evolved to, "What's your price?" Mr. Durey recalls. "He told Mr. Deming that we could be rewarded for looking the other way." The offer: \$2 million for nine million cable converters, Mr. Durey says. The two men flatly refused the offer and left.

Soon after, Messrs. Durey and Deming met with FBI agents — whom they had approached months earlier about general theft in the cable industry — to alert them of the bribe offer. The FBI, pursuing leads on its own cable probes, arranged a meeting with federal prosecutors in New Jersey. "We traded information and agreed to cooperate further," Mr. Durey says. "That was the beginning of the end."

The FBI then set its trap. Mr. Deming went back to Mr. Russo and sold himself as a General Instrument turncoat who could be bought. He says in an interview that he told Mr. Russo, "Durey doesn't understand the value of a dollar." Since the FBI already had an undercover cable operation at a warehouse in New Jersey doing business as Prime Electronics, Mr. Deming arranged for that store to be the front through which Mr. Russo would get his boxes.

Initially, according to the indictment, Mr. Deming arranged to be paid based on the number of converters he supplied, but later Mr. Russo agreed to pay \$10,000 a month. In lieu of payments from December 1994 to March 1995, Mr. Deming requested — and received — a blue Porsche Carrera II valued at \$40,000.

"I was flabbergasted at how sophisticated the operation was," Mr. Deming

says. "They ran a good business: high cash flow, good quality control, strong marketing. Better than some legitimate cable companies."

Soon Mr. Deming found himself with Mr. Russo at the best tables in five-star restaurants in New York and South Florida. "It was a lot of drinking and dancing, definitely 'dolce vita!'" Mr. Deming says. "They were always well-dressed and always had plenty of cash." Once, he said, he waited in Mr. Russo's kitchen for his monthly \$10,000 bribe payment. His jaw dropped when Mr. Russo pulled out the stacks of money, hidden in the dishwasher. "There was still a lot left inside when he shut it," Mr. Deming says.

All along, Mr. Russo kept an eye on business. One night in New York, Mr. Russo picked Mr. Deming up in a chauffeured limousine to go test a new descrambler in houses and apartments around Manhattan. The homes were owned by friends of the limousine driver, whom Mr. Deming described as "an attractive young lady." In most of the houses, the descrambler worked, but "not to Frank's liking," Mr. Deming recalled. "The next day Frank shipped it back, and an engineer had it working in 10 days."

Paper Worries

After several months, the Russos began to worry about covering their paper trail to Mr. Deming and Prime, even though the business frequently used false invoices and the interstate shipments of huge sums of cash, according to the indictment. To hide the bribe payments, the Russos created a fake company, Hanson Corp., which would receive payments for Mr. Deming from the Russos' firm, Leasing Ventures, and provide false invoices, the indictment states.

In July 1994, Mr. Russo attempted to hide his trail completely. He flew to the Cayman Islands to set up an offshore bank account to camouflage the transactions.

There, Guardian Bank Chairman John M. Mathewson issued Visa Gold credit cards that permitted Mr. Deming to have access to the Hanson account anywhere in the U.S. without revealing the ownership, according to the indictment.

Immediately, the Russos deposited \$20,000 into the account. Each month, Guardian Bank accepted a check from Leasing Ventures for \$10,000 made out to Hanson Corp. Mr. Mathewson also provided back-dated invoices that gave the appearance that the check was for cable equipment. There was only one glitch in Mr. Russo's ruse, according to the indictment: A Deming associate who had flown with him to the Caymans when he originally opened the account turned out to be an undercover FBI agent.

As business picked up for Mr. Russo, across the country in California, authorities were shutting down another alleged cable pirate, Trey Prevost. His company, Novaplex, lost a civil case with Continental Cablevision over allegedly dealing in illegal pancakes and was barred by a federal court in California from the descrambler business, according to papers filed in U.S. District Court in Santa Ana, Calif.

But in October 1994, the rival pirate firms teamed up. Mr. Russo hooked up with Mr. Prevost and his chief financial officer, Anthony Lee Marinaccio. Investigators believe, because Mr. Prevost's Novaplex still had a surplus of boxes and steady suppliers in the lucrative black market.

Ambitious Plans

Messrs. Russo and Prevost and a few other defendants soon struck upon an idea: Why not join forces to corner the nation's black market on cable converters? The men hatched a plan to split up the duties and conquer the market, the indictment against them states. Mr. Prevost and Mr. Marinaccio, taking shipments of electrical components primarily from the Pacific Rim, would supply all the pancake parts exclusively to Mr. Russo and his company, which would assemble the boxes. Shipping would be handled by a Russo company

known as ZZ Packaging. The marketing and retail sale would be handled by a firm in North Carolina known as M.O.S. Ltd. They christened the plan "Cable Box Central," the indictment states.

Messrs. Prevost and Marinaccio imported the computer components, the indictment went on, but also used foreign firms to invoice and collect funds. One such company, Hazeltown, registered in Dublin, was used to hide Mr. Prevost and Novaplex's role in the importation of circuit boards into the U.S. Hazeltown's bank account in London was used to collect wire-transfer payments from Novaplex's domestic retailers and to make wire-transfer payments to suppliers of pancake chips, including a company called Digitek in New Jersey.

As the investigation unfolded, FBI agents made a simultaneous raid on 30

homes and businesses in seven states, harvesting months of undercover work. By the summer of last year, prosecutors decided to indict the defendants with the evidence they had gathered. Besides Messrs. Russo and Prevost, the indictments snagged Mr. Mathewson, the Cayman Island banker, and Mr. Marinaccio, the chief financial officer of Novaplex. According to plea agreements filed in the case, Mr. Mathewson has pleaded guilty to various counts of mail and wire fraud and money laundering; Mr. Marinaccio pleaded guilty to various counts of cable piracy. Both await sentencing.

And the U.S. attorney's office isn't finished yet. Prosecutors are now chasing even bigger fish, with possible links to organized crime. Assistant U.S. Attorney John J. Carney says, "If you're a pirate, be scared."

APPENDIX C

A Typical Encryption System

